

# Dermoscopy of histoid leprosy: a case report

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## Introduction

Dermoscopy reveals structures and features invisible to the naked eye, providing additional morphologic information during clinical examination of skin lesions. This diagnostic technique was utilized in the detection of melanoma and other tumors [1]. More recently, utility of dermoscopy has expanded to inflammatory and infective conditions where vascular alterations, color variegations and follicular disturbances are observed [2]

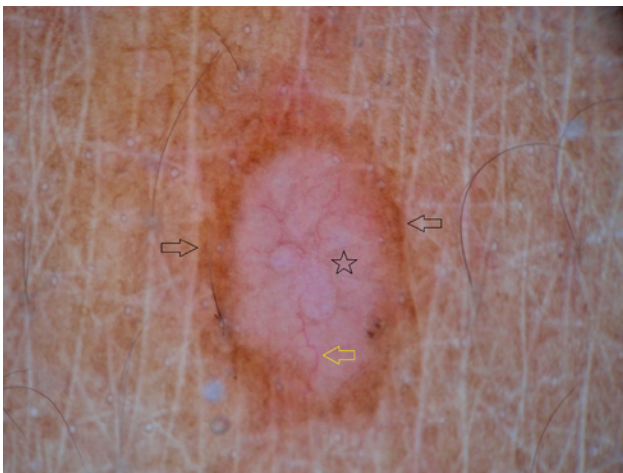
Dermoscopic patterns are described in many granulomatous conditions such as lupus vulgaris, sarcoidosis and granuloma annulare [3]. However, dermoscopy of leprosy, is a chronic granulomatous disease, is not described in the literature. Here, we describe dermoscopic patterns in a patient with histoid leprosy (HL).

## Case Report

A 54-year-old male presented with a history of asymptomatic skin lesions over the back and trunk for four months. They were progressive in nature. Detailed examination revealed multiple slightly erythematous to skin-colored infiltrated, non-tender papules and nodules situated on the back, trunk and arms (Figure 1). Peripheral nerve examination was nor-



**Figure 1.** Clinical image showing coppery red papules and nodules on the back.



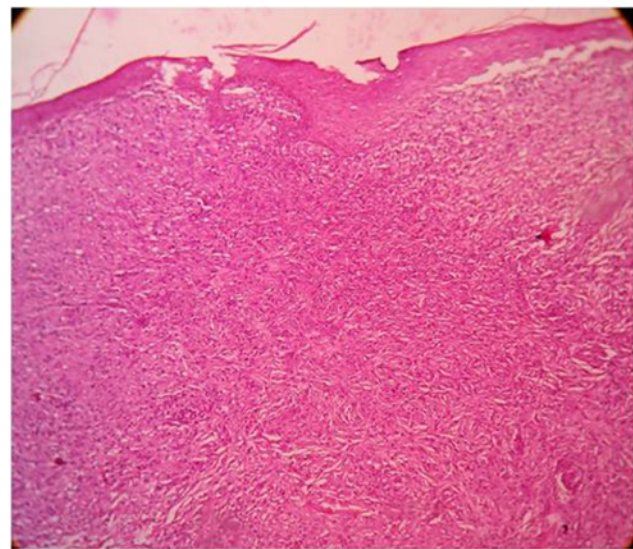
**Figure 2.** Dermoscopy demonstrating whitish-yellow structureless area (black star), peripheral rim of brownish pigmentation (black arrows) and linear branching vessels (yellow arrow).

mal. Differential diagnosis of HL, sarcoidosis, neurofibromatosis and deep fungal infection was considered. Dermoscopy was performed using handheld manual DermLite 3 (3Gen, Inc, San Juan Capistrano, CA, USA) with polarized mode and it demonstrated a whitish-yellow structureless area over entire lesion surrounded by a rim of brownish pigmentation. Vessels, in a linear branching pattern, were noted running towards the center (Figure 2). Slit skin smear from the lesions revealed bacteriological index of 4+. Skin biopsy showed features suggestive of HL (Figure 3).

## Discussion

HL is known for unusual presentations that challenge clinicians in the diagnosis. HL presents as asymptomatic nontender nodules. There are many reports of unusual manifestations of HL. This necessitates the need for histopathological examination for confirmation [4]. Dermoscopy, being a non-invasive technique, can expand the armamentarium of diagnostic methods in HL. Since all types of leprosy are endemic to the Indian subcontinent, dermoscopy can be a better screening method considering the time, cost and experience as compared to histopathological diagnosis. Although dermoscopic patterns in granulomatous conditions such as granuloma annulare, sarcoidosis and lupus vulgaris have been studied, there are no descriptions of dermoscopy of HL in the literature [3,5].

Generally, yellow-orange structures in combination with linear vessels in branching pattern under dermoscopy suggest granulomatous skin condition [3]. In this case, dermoscopy demonstrated a whitish-yellow structureless area, which was in contrast to previous observations in granulomatous conditions wherein yellow-orange globules were noted. A whitish-yellow structureless area corresponds to granuloma



**Figure 3.** Histopathology showing epidermal atrophy, Grenz zone. Dermis is replaced by spindle shaped histiocytes in an interlacing pattern. (H & E, 10x)

and whitish color is probably due to whorled arrangement of spindle-shaped histiocytes in the granuloma in HL. A peripheral rim of brownish pigmentation was observed, which might be because of color of the skin type. However, pigmentation is not mentioned in literature [3,5]. Vessels were in linear branching patterns, similar to the patterns described in granulomatous conditions, especially in lupus vulgaris and sarcoidosis [3]. Different vascular patterns are described in various granulomatous conditions. In cutaneous leishmaniasis, vessels are in comma-like, dotted, hairpin and linear patterns, whereas in necrobiosis lipoidica, a prominent vascular network is noted. In granuloma annulare, vessels are in dotted or linear [3].

## Conclusion

To conclude, dermoscopy of HL shows characteristic patterns of a granulomatous skin condition. A whitish-yellow structureless area and peripheral brownish pigmentation were new dermoscopic observations in HL. To the best of our knowledge, this is first report of dermoscopy of leprosy in general and of HL in particular. Further studies are recommended involving a large sample size.

## References

1. Argenziano G, Puig S, Zalaudek I, et al. Dermoscopy improves accuracy of primary care physicians to triage lesions suggestive of skin cancer. *J Clin Oncol.* 2006;24:1877–1882.
2. Zalaudek I, Kreusch J, Giacomel J, Ferrara G, Catricalà C, Argenziano G. How to diagnose nonpigmented skin tumors: a review of vascular structures seen with dermoscopy: part II. Nonmelanocytic skin tumors. *J Am Acad Dermatol.* 2010;63:377–386.

3. Lallas A, Zalaudek I, Argenziano G, et al. Dermoscopy in general dermatology. *Dermatol Clin* 2013; 13: 679–694.
4. Jindal R, Shirazi N. Uncommon clinical presentations of leprosy: apropos of three cases. *Lepr Rev*. 2016;87:246–251.
5. Pellicano R, Todorovic-Zivkovic D, Gourhant JY, et al. Dermoscopy of cutaneous sarcoidosis. *Dermatology*. 2010;221:51–54.